COMBUSTION PROCESS WITH A PREFERENTIAL INJECTION OF A CHEMICAL FOR POLLUTANT REDUCTION

Abstract of the Disclosure

A burner having high peak temperatures in a first turbulent zone near the entry of fuel into the combustion region is altered so as to have a peak temperature that is below the temperature at which a chemical useful to remove a pollutant would dissociate or have its activity destroyed. While this peak temperature is reduced in the first zone, the chemical is injected therein. This zone's turbulence causes the chemical to be dispersed without being destroyed during its transit to reach a second distal zone where pollutants prevail in conditions favorable for their removal by the chemical. The chemicals can be delivered by way of a powder or by being dissolved in liquid droplets. The sizes of the droplets are selected so as to enable the chemically laden droplet to survive transit through the first zone so as to reach the second distal zone intact to treat polluting components.

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